

CLAIMS

1. A printing module provided with a frame, an impression roller, a plate cylinder assembly comprising a plate cylinder which is provided with a print image and which, in use, with interposition of a substrate to be printed, abuts against the impression roller, an anilox roller and a doctor roller, the doctor roller taking up ink from an ink reservoir, the anilox roller being arranged between the doctor roller and the plate cylinder, such that a desired amount of ink is taken off the doctor roller by the anilox roller and transferred to the plate cylinder, the plate cylinder assembly being provided with a stationary shaft on which the plate cylinder is rotatably bearing-mounted, while on opposite sides of the plate cylinder a support is fixedly connected with the stationary shaft, the printing module comprising two receiving units disposed on opposite sides of the plate cylinder, which are connected with the frame, in which receiving units rest the supports when the plate cylinder assembly in the operative position is mounted in the printing module, while fixation means are provided for fixating the plate cylinder assembly in the receiving units, characterized in that the fixation means are situated substantially under the plate cylinder assembly.
2. A printing module according to claim 1, wherein the fixation means comprise two rods which, at an upwardly directed end, are provided with a hook, the two hooks, on opposite sides of the plate cylinder, engaging the stationary shaft of the plate cylinder assembly when the plate cylinder assembly is in the operative position, while on the rods a pull force is exerted for pressing the plate cylinder assembly into the receiving units.
3. A printing module according to claim 2, wherein the two rods are each connected, at the ends remote from the hooks, with a piston-cylinder assembly for adjusting the position of the rods in a longitudinal direction thereof and for exerting said pull force.

4. A printing module according to any one of claims 1-3, wherein the fixation means are further provided with bearing surfaces on which rests the plate cylinder assembly when the fixation means are in a release position, while the plate cylinder assembly in this release position is lifted 5 out of the receiving units and is moved upwards, such that the plate cylinder assembly can be simply taken out of the printing module.
5. A printing module according to claims 2 and 4, wherein each rod is provided with a said bearing surface, which bearing surface upon upward movement of the rods in the direction of the longitudinal axes of the rods 10 automatically enters into engagement with the stationary shaft and thereby lifts the plate cylinder assembly from the receiving units.
6. A printing module according to any one of the preceding claims, wherein the receiving units are each provided with a supporting surface which is provided with a particular curve, the curve being such that the 15 distance between plate cylinder and the anilox roller on the one hand and the distance between the plate cylinder and the impression roller on the other in each case remain, in pairs, mutually equal at different diameters of plate cylinders, which are provided with rings of diameters matching the plate cylinders.
- 20 7. A printing module according to any one of the preceding claims, wherein substantially above the receiving units, receiving means are provided for mounting additional processing means.
8. A printing module according to claim 7, wherein the receiving means comprise two guides.
- 25 9. A printing module according to claim 7 or 8, wherein the additional processing means comprise, for instance, substrate web inverting units, winders, unwinders, digital printheads, punching units, laminating or delaminating units or the like.
10. A printing machine provided with at least one printing module 30 according to any one of the preceding claims.